

D1
et
concl

Serial Number: 09/389,085

from both the speaker and the passive radiator, wherein said sensor is a speaker.

2. The audio system of claim 1, wherein said audio system comprises a low frequency audio system.

4. The audio system of claim 1, wherein said sensor mounting structure comprises a damped elastic mounting structure.

5. The audio system of claim 1, wherein said sensor mounting structure comprises an enclosure mounted on said first wall and including said opening in said first wall.

6. The audio system of claim 1, further comprising a means for adjusting the audio output of said first speaker based on said pressure sensed by said sensor.

7. The audio system of claim 1, wherein said first speaker has a speaker maximum width and said sensor has a sensor maximum width, and said sensor maximum width is smaller than said speaker maximum width.

8. The audio system of claim 1, wherein said sensor has a signal-to-noise ratio of at least of 100 dB.

9. The audio system of claim 1, wherein said audio system has a feedback factor of 30 to 50 dB when said first speaker operates at a frequency of about 15 to 300 Hz.

10. The audio system of claim 1, further comprising acoustic absorbing material contained in said cabinet.

12. The audio system of claim 1, wherein said first speaker comprises an electrodynamic planar speaker.

Serial Number: 09/389,085

13. The audio system of claim 1, wherein said first speaker comprises an electrostatic planar speaker.

14. (Twice Amended) A method for improving acoustical accuracy in an audio system comprising the steps of:

mounting a first speaker inversely in an opening of a wall of a cabinet;

mounting a passive radiator in said cabinet opposite said first speaker;

sensing pressure from audio output from the first speaker and the passive radiator; and

adjusting the audio output from the first speaker based on the pressure sensed in said sensing step, wherein said sensing step is performed by a sensor comprising a speaker.

15. The method of claim 14, wherein the audio system comprises a low frequency audio system.

17. The method of claim 14, wherein said sensing step is performed by a sensor having a signal-to-noise ratio of at least of 100 dB.

18. The method of claim 14, wherein said method produces an audio system feedback factor of 30 to 50 dB when the first speaker operates at a frequency of about 15 to 300 Hz.

19. The method of claim 14, wherein said first speaker comprises an electrodynamic planar speaker.

20. The method of claim 14, wherein said first speaker comprises an electrostatic planar speaker.

21. An audio system, comprising:
a cabinet having an opening in a first wall thereof;

Serial Number: 09/389,085

a first speaker for emitting audio output, said first speaker being mounted inversely at said opening of said cabinet; and

a sensor for sensing pressure caused by the audio output from said first speaker, said sensor being mounted in said cabinet by a sensor mounting structure joined to said cabinet, wherein said sensor mounting structure comprises a damped elastic mounting structure.

22. An audio system, comprising:

a cabinet having an opening in a first wall thereof;

a first speaker for emitting audio output, said first speaker being mounted inversely at said opening of said cabinet; and

a sensor for sensing pressure caused by the audio output from said first speaker, said sensor being mounted in said cabinet by a sensor mounting structure joined to said cabinet, wherein said sensor mounting structure comprises an enclosure mounted on said first wall and including said opening in said first wall.

Please add new claims 23-27 as follow:

3
23. (New) An audio system, comprising:

a cabinet having an opening in a first wall thereof;

a first speaker for emitting audio output, said first speaker being mounted inversely at said opening of said cabinet;

a passive radiator for emitting audio output, said passive radiator mounted in said cabinet opposite said first speaker; and

a sensor for sensing pressure caused by the audio output from said first speaker, said sensor being mounted in said cabinet by a sensor mounting structure joined to said cabinet, said sensor mounted in such a manner as to receive a signal from both the speaker and the passive radiator, wherein said sensor has a signal-to-noise ratio of at least of 100 dB.

24. (New) An audio system, comprising:

Serial Number: 09/389,085

C3
cont

a cabinet having an opening in a first wall thereof;
a first speaker for emitting audio output, said first speaker being mounted inversely at said opening of said cabinet;
a passive radiator for emitting audio output, said passive radiator mounted in said cabinet opposite said first speaker; and
a sensor for sensing pressure caused by the audio output from said first speaker, said sensor being mounted in said cabinet by a sensor mounting structure joined to said cabinet, said sensor mounted in such a manner as to receive a signal from both the speaker and the passive radiator, wherein said audio system has a feedback factor of 30 to 50 dB when said first speaker operates at a frequency of about 15 to 300 Hz.

25. (New) An audio system, comprising:

a cabinet having an opening in a first wall thereof;
a first speaker for emitting audio output, said first speaker being mounted inversely at said opening of said cabinet;
a passive radiator for emitting audio output, said passive radiator mounted in said cabinet opposite said first speaker;
a sensor for sensing pressure caused by the audio output from said first speaker, said sensor being mounted in said cabinet by a sensor mounting structure joined to said cabinet, said sensor mounted in such a manner as to receive a signal from both the speaker and the passive radiator; and
acoustic absorbing material contained in said cabinet.

26. (New) A method for improving acoustical accuracy in an audio system comprising the steps of:

mounting a first speaker inversely in an opening of a wall of a cabinet;
mounting a passive radiator in said cabinet opposite said first speaker;
sensing pressure from audio output from the first speaker and the passive radiator; and
adjusting the audio output from the first speaker based on the pressure sensed

Serial Number: 09/389,085

in said sensing step, wherein said sensing step is performed by a sensor having a signal-to-noise ratio of at least of 100 dB.

27. (New) A method for improving acoustical accuracy in an audio system comprising the steps of:

mounting a first speaker inversely in an opening of a wall of a cabinet;

mounting a passive radiator in said cabinet opposite said first speaker;

sensing pressure from audio output from the first speaker and the passive radiator; and

adjusting the audio output from the first speaker based on the pressure sensed in said sensing step, wherein said method produces an audio system feedback factor of 30 to 50 dB when the first speaker operates at a frequency of about 15 to 300 Hz.